# City of Seattle

SUSTAINABLE BUILDING PROGRAM

## 5-YEAR REPORT
*2000-2005*

# BUILDING
*a Better City*





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**City of Seattle**
Sustainable Building Program
Gregory J. Nickels, Mayor


To download a copy of this report, or to learn more about the City of Seattle's Sustainable Building Program, visit *www.seattle.gov/sustainablebuilding*. If you have questions, please contact:


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## Appendices

The appendices to this report are contained in a separate document that can be downloaded at *www.seattle.gov/sustainablebuilding*. They include:

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*Southwest Precinct, Seattle Police Department*

# executive summary

Substantial progress has been made since the City of Seattle adopted a Sustainable Building Policy in February 2000. Coupled with the biggest capital improvement program since the Seattle fire of 1888, the policy provided a unique leadership opportunity to create change in the building industry.

The City of Seattle currently has 38 projects—either completed, under construction, or planned—that are targeted for LEED™, the U.S. Green Building Council's rating system (see pgs. 6-7). Thirteen of these projects are completed. By 2013, when all 38 are complete, the City is expected to be one of the largest single owners of LEED™ facilities.

Tremendous growth in green building has occurred in the commercial/institutional market. Thirteen percent of all LEED™-registered commercial/institutional projects are in the Pacific Northwest; over 2% of all LEED™ projects, including those owned by the City and all others, are in Seattle. These local buildings represent 7.9 million square feet, $1.8 billion, and a substantial contribution to Seattle's tax base. Seattle now ranks number one in the nation for LEED™ projects and professional expertise, with 808 LEED™ Accredited Professionals; as a result, Seattle firms are benefiting from exporting their expertise and services. The City has provided support to green buildings with incentives of over $2 million for energy conservation, over $2 million for natural drainage/water conservation, and over $300,000 for design and consulting fees for LEED™ projects.

In the residential market, Built Green™ homes now represent 17% of all new construction in King and Snohomish Counties (see pg. 10). Built Green™ is a residential program developed by the Master Builders Association of King and Snohomish Counties (with King County, Snohomish County, and the City of Seattle). Seattle Public Utilities also developed a series of guides and classes focused on common remodeling activities to assist homeowners with green remodel design and materials.

A sustainable building guide tailored to non-profit developers of affordable housing—called "SeaGreen: Greening Seattle's Affordable Housing"—was developed by the City's Office of Housing to provide strategies that promote healthy, high-quality, affordable housing for those who can least afford it. To date, the Office of Housing has provided over $25 million for 18 SeaGreen multifamily housing projects (771 units).

Numerous stakeholders have asked for more green building education. In response, the City has launched commercial and residential sector communication campaigns and awards programs, published project case studies, developed web-based tools, and established continuing education training programs.

We believe several steps are needed next to continue the substantial green building market growth. The first step is to better understand how investments in green building contribute to a vibrant economy. To address this question, an economic development study was commissioned by the Seattle Office of Sustainability and Environment and the Office of Economic Development and will be released in early 2006.

In addition, the Mayor has indicated that one of his priorities is to accelerate environmentally sustainable design and construction practices in the private sector. Some potential strategies to accomplish this goal include creating the following: a sustainable development resource center; development incentives/codes that encourage green building; strategies to increase the quality of services to customers; and incentives for reducing stormwater runoff, including green roofs. These and other issues will be addressed in a forthcoming Sustainable Building Action Agenda, which will be based on discussions with industry leaders and the City's green building experience over the past five years.

*Birch Tree Cottages, GreenLeaf Construction*
*Photo by Jed Eli*

# program background

The team of City of Seattle staff members working towards implementing the City's Sustainable Building Program includes capital projects managers and staff, facility managers, conservation staff, building permit staff, and many others too numerous to name. In addition, many consultants and building industry professionals effectively became a part of the team, without which the accomplishments would not be possible. In order to better coordinate these efforts, the City formed a cross-departmental Green Building Team with dedicated staff from various departments in 1999, which brought the many aspects of sustainable building into focus.

# SEATTLE'S *Sustainable Building Policy*

"It shall be the policy of the City of Seattle to finance, plan, design, construct, manage, renovate, maintain, and decommission its facilities and buildings to be sustainable. The U.S. Green Building Council's LEED™ (Leadership in Energy and Environmental Design) rating system shall be used as a design and measurement tool to determine what constitutes sustainable building by national standards. All new and major remodel facilities and buildings over 5,000 gross square feet of occupied space shall meet a minimum LEED™ Silver rating."

*— adopted in February 2000 (emphasis added)*

**TOP 10 CITIES FOR LEED™**
**Measured by Combined Numbers of Certified and Registered Projects**
*September 2005*

| RANK | CITY | # OF PROJECTS |
|---|---|---|
| **1** | **Seattle** | **58** |
| 2 | Portland | 56 |
| 3 | Chicago | 44 |
| 4 | Los Angeles | 36 |
| 5 | Grand Rapids | 32 |
| 6 | San Francisco/ Washington, D.C. | 27 |
| 7 | Pittsburgh | 24 |
| 8 | Houston/ Atlanta | 23 |



In February of 2000, the City of Seattle adopted the LEED™ standard (see pg. 6) as part of a Sustainable Building Policy, via a unanimous City Council resolution. This report highlights the City's major accomplishments and contributions in designing and constructing sustainable (green) buildings in Seattle over the past five years.

Many in the building industry acknowledge that Seattle's program has created ripple effects locally and nationally. Leading by example, the City is accelerating sustainable building of private sector development. Seattle has one of the strongest green building markets in the nation, and this market is expected to continue to grow.

According to an upcoming report on the economic development potential of green building, Seattle can expect significant growth in the sustainable building industry in the near to mid-term future, which can be expected to reduce local utility demands, support the local economy, and improve quality of life for Seattle residents.

*Seattle is the number one city in the nation for LEED™ building projects.*

*— See definition of LEED™ ranking in table at left*

The coming growth is due to the fact that the adoption of innovative green building options is just now beginning to reach a majority of the market.

*— See Appendix I for more on Innovation Adoption.*

## Definition of Sustainable Building

Sustainable (green) building is an integrated framework of design, construction, operations and demolition practices that encompasses the environmental, economic, and social impacts of the built environment. Green building practices recognize the interdependence of the natural and built environments, and balance social and human needs with conservation, integrating the "three P's" of sustainability— People, Planet, and Prosperity.

# public construction

## Status of City Capital Projects and LEED™

As of October 2005, the City of Seattle has 38 completed or planned projects targeted for LEED™ certification. These represent capital improvement projects within six departments (see table on pg. 7).

Until design, bidding, and certification are complete, it is not known with certainty that projects can meet the policy at the Silver level of LEED™. Some projects have not been able to meet the goal, and some have exceeded it. Some projects that fall under the policy, but were funded before the policy was adopted, have not used LEED™. Other projects, such as Carkeek Park Environmental Learning Center, have voluntarily followed LEED™ even though they did not meet the policy threshold of 5,000 square feet.

*The City of Seattle is expected to be one of the largest single owners of LEED™ facilities in the world.*

However, the Sustainable Building Policy has also helped to increase green features on projects that did not formally adopt LEED™, such as the Ballard Library, which includes solar panels and a green roof. The Parks Department has also created a green building performance scorecard to track accomplishments for projects that do not fall under the City policy. *(See Appendix 14.)*

The City has completed 13 projects, of which eight are certified, four have certification pending, and one did not receive a LEED™ rating. One more project will be completed in 2005— the Northgate Branch Library and Community Center—and two more projects are expected to be certified by the end of 2005. Many of the future planned projects are part of a significant group of Fire Levy funded projects, with a long-term completion schedule extending into 2013. Seattle Public Utilities' planned redevelopment of two solid waste transfer stations and intermodal facility are also targeted for LEED™ Silver. *(See also "Lessons Learned" on pg. 8.)*

## What is LEED™?

LEED™ (Leadership in Energy and Environmental Design) is a green building rating tool developed by the U.S. Green Building Council (USGBC), of which the City of Seattle is a member. City staff have served on the USGBC national and local board of directors and committees. For more on LEED™, visit *www.usgbc.org*.





Library Photo Credit: Pragnesh Parikh, OMA-LMN


# CITY LEED™ PROJECT LIST

Once all the capital improvement projects listed below are complete, the City of Seattle is expected to be one of the largest single owners of LEED™ facilities in the world. The only other entity with this number of planned LEED™ projects is the Los Angeles Community College District. *See "Lessons Learned from Public Construction" on pg. 8.*

| | PROJECT NAME | DEPARTMENT | COMPLETION | LEED™ PLAQUE AWARD |
|---|---|---|---|---|
| **Completed Projects** | | | | |
| 1 | Fisher Pavilion | Seattle Center | Complete | Certified |
| 2 | Seattle Justice Center | Fleets & Facilities | Complete | Silver |
| 3 | Carkeek Park Environmental Learning Center | Parks & Recreation | Complete | Gold |
| 4 | Marion Oliver McCaw Performance Hall | Seattle Center | Complete | No rating |
| 5 | SW Precinct | Fleets & Facilities | Complete | Pending |
| 6 | Park 90/5 Building C | Fleets & Facilities | Complete | Gold |
| 7 | Central Library | Seattle Public Libraries | Complete | Silver |
| 8 | Seattle City Hall | Fleets & Facilities | Complete | Gold |
| 9 | Highpoint Community Center | Parks & Recreation | Complete | Certified |
| 10 | Cedar River Treatment Facility Ops Building | Seattle Public Utilities | Complete | Pending |
| 11 | Park 90/5 Building A | Fleets & Facilities | Complete | Silver |
| 12 | North Cascades Environmental Learning Center | Seattle City Light | Complete | Pending |
| 13 | Yesler Community Center | Parks & Recreation | Complete | Pending |
| **Projects under Construction** | | | | |
| 14 | Seattle Municipal Tower Remodel | Fleets & Facilities | 2006 | |
| 15 | Joint Training Facility | Fleets & Facilities | 2006 | |
| 16 | Northgate Branch Library, Community Center | Parks & Libraries | 2006 | |
| 17 | SPU Operations Control Center | Seattle Public Utilities | 2006 | |
| **Projects in Planning or Design** | | | | |
| 18 | Montlake Community Center | Parks & Recreation | 2006 | |
| 19 | Fire Station #10 Replacement Project | Fleets and Facilities | 2007 | |
| 20-35 | Fire Stations #2, 6, 9, 14, 17, 20, 21, 22, 28, 30, 32, 35, 37, 38, 39, 41 | Fleets & Facilities | 2009-2013 | |
| 36-38 | North & South Recycling and Disposal Station Improvements, Solid Waste Intermodal Facility | Seattle Public Utilities | 2009/2010 | |

*The table above includes projects which fall under the City's policy and which attempted to meet it. Several other projects did not attempt to meet the policy, primarily for budget reasons, including the Ballard, Beacon Hill, Capitol Hill, Greenwood and High Point Branch Libraries, and the Southwest Community Center. Some of these projects did, however, incorporate green building features without certifying through LEED™.*

— cont. from pg. 7

## Lessons Learned from Public Construction

The five years since the City's Sustainable Building Policy was adopted represent the initial phase of policy implementation, with associated successes and failures that always come with a new endeavor. A key factor to keep in mind is that early adopters of innovations are able to test new concepts, and the lessons learned can then be passed on to others to make it easier for them.

In order to compile actual results and lessons from public construction, the Green Building Team is conducting a post-occupancy analysis of several projects, the results of which will hopefully be completed in 2006.

Design and construction costs have limited the ability of some projects to meet the policy. On average, the incremental construction costs have been less than 2% of the maximum allowable construction cost, but up-front costs don't always have to be higher. Projects using a general contractor/construction manager (GCCM) contracting approach have been better able to contain costs. In addition, some projects—such as City Hall, Park 90/5 Building C, and Carkeek Park Environmental Learning Center—have been able to exceed the policy by attaining LEED™ Gold.

*— For a list of the post-occupancy analysis study areas, see Appendix 6. For a more complete listing of cost and budget impacts and challenges, see Appendix 2.*

# commercial & institutional market

Over the past five years, tremendous growth in green building has taken place both nationally and locally. In the commercial and institutional market, LEED™ buildings represent a significant portion of this growth. In fact, the U.S. Green Building Council reports that LEED™ buildings constitute more than 5% of the new commercial construction market.

As of September 2005, 12% of all LEED™ registered projects were in the Pacific Northwest (an area with only 3% of the U.S. population), with 58 projects and 3% of all LEED™ projects located in Seattle. (These include City of Seattle and all other LEED™ projects.) This represents local buildings totaling over 7.9 million square feet, and $1.8 billion in capital investments (assuming an average construction cost of $225/sq. ft.).

| REGION | # OF LEED PROJECTS | % OF TOTAL | TOTAL SQUARE FEET | CAPITAL INVESTMENT |
|---|---|---|---|---|
| All Projects | 2,068 | 100% | 192 million | $57.1 billion |
| Cascadia Region | 251 | 12% | 22 million | $6.2 billion |
| Seattle | 58 | 3% | 7.9 million | $1.8 billion |

In addition, with 808 LEED™-Accredited Professionals, Seattle ranks number one in the nation for professional expertise—and Seattle firms are benefiting from selling their expertise and services to other communities via consulting and design contracts.

## Public Sector Ripple Effects

After Seattle announced its Sustainable Building Policy, a host of other government jurisdictions announced their commitment to LEED™ for public construction. These include the Cities of Boston, Los Angeles, Chicago, Austin, Portland, San Francisco, Scottsdale and many others.

Closer to home, many other pivotal organizations subsequently committed to LEED™, including: King County, the University of Washington, Seattle University, and the State of Washington. In addition, the cities of Redmond, Shoreline, Bellingham, and Sammamish are considering or planning to build LEED™ city halls. Local private developers are also building LEED™ projects, including Vulcan Development, Harbor Properties, and Gregory Broderick Smith Real Estate.

## City LEED™ Incentive Program

The City's LEED™ Incentive Program was launched in the fall of 2001 as a joint program of Seattle City Light and Seattle Public Utilities. Modeled after Portland's G-Rated Program, Seattle's program provides up-front, soft-cost assistance to projects which commit to LEED™ and hold at least one LEED™ workshop or charrette. Funds can be used for additional design and consulting fees, and for participation in the LEED™ program. Funding levels are:

- » $15,000 for LEED™ Certified
- » $20,000 for LEED™ Silver or above

Since program initiation, 18 projects have participated. These projects represent 1.8 million square feet of development, a construction cost of almost $224 million, and 874 units of green multifamily housing. Two of the completed projects are currently LEED™ certified. Combined with the Built Green™ multifamily funding, the program has grown from initial funding of $80,000 in 2001, to a total funding level of just over $100,000 annually.

Projects that have taken advantage of the program include: Woodland Park Zoo's Family Science Learning Center; University of Washington's Merrill Hall, and Nordheim Court Student Housing; Vulcan and Harbor Properties for Alcyone Apartments and 307 Westlake; and Seattle Housing Authority for the High Point affordable housing redevelopment.

*— For a complete list of projects, see Appendix 3.*

## Other City Program Contributions

The City has various programs and departments that represent individual pieces of sustainable building. These programs have regularly been utilized to further leverage sustainable building as a holistic concept. For example, Seattle City Light has contributed over $2 million for energy conservation measures in Seattle LEED™ projects. SPU programs have contributed to innovative water saving systems at City Hall and Park 90/5 and over $2 million for natural drainage systems at the High Point neighborhood redevelopment.

*— For a complete listing of programs, see Appendix 4.*

## Seattle Biomedical Research Institute

The Seattle Biomedical Research Institute (SBRI), a nonprofit funded through grants for research, partnered with Vulcan, Inc. and Harbor Properties to develop a new state-of-the-art facility using the LEED™ rating system.

The cost for LEED™ added a 1% premium to the project, which was considered a good investment because it created long-term value for the owner. The project utilized the City's LEED™ Incentive Program and Seattle City Light energy conservation incentives, helping to defray the premium by over $160,000. The design team focused on strategies that would provide operational savings and create a healthy environment for tenants.

### Business Benefits

- » Energy performance 35% beyond code with annual savings of over $43,000.
- » Water use reduced by 23% with annual savings of 186,000 gallons and $1,860 per year.
- » Dollars saved can be used to move SBRI's research forward at a faster rate.

*"The building's success validates the business case for sustainable development. Operational savings will translate to added income to advance the business goals of our tenants."*

*— Ada Healey, Vice President*
*Vulcan Real Estate*

# residential market

*...improving quality of life*

*Built Green™ homes now represent 17% of all new residential construction in King and Snohomish counties.*

Seattle is experiencing similar green building growth in the residential market as it is with LEED™ for commercial and institutional buildings. The City endorses and supports two programs for the residential market:

- Built Green™ - a residential green building program/rating system developed by the Master Builders Association of King and Snohomish Counties
- SeaGreen - a set of guidelines tailored to affordable housing projects; developed by the Seattle Office of Housing

In 2003, less than 1% of the nearly 2,500 Built Green™ certified homes in King and Snohomish counties were located in Seattle. To stimulate the growth in green home development the City launched a Built Green™ Design Competition (see pg. 13) and multifamily incentive program and initiated an education/outreach program to raise awareness with local builders.

Together these programs spurred considerable growth in the Built Green™ market. As of August 2005 the number of Built Green™-certified projects in Seattle had jumped from 12 to 84 in just two years. This represents 342 total green housing units for Seattleites. In 2004 Built Green™ homes represented 17% of all new residential construction in King and Snohomish counties.

| BUILT GREEN PROGRAM | # OF PROJECTS | # OF UNITS |
|---|---|---|
| Single Family | 806 | 806 |
| Multifamily | 11 | 812 |
| Communities | 4 | 4 |
| TOTAL | 821 | 1,622 |

## Built Green™ Multifamily Incentive Program

The City of Seattle Built Green™ Multifamily Incentive Program, co-funded by Seattle City Light and Seattle Public Utilities, provides financial assistance to building owners and developers to incorporate meaningful and cost-effective sustainable building goals early in residential multifamily building programming and design decisions.

Shortly after the LEED™ Incentive Program was launched in 2001, early interest in this program by lowrise multifamily projects indicated a need for a complementary incentive program better suited to multifamily construction. Built Green™ Incentive funding was established on a sliding scale for number of project units, using funding ceilings similar to those used in the LEED™ Incentive Program. Since program initiation, five projects have participated in the program, representing over 500,000 square feet of development at a construction cost of over $71 million. In addition, these projects represent 490 units of green multifamily housing, most of it affordable.

## High Point

Seattle Housing Authority's Hope VI High Point 1,600-unit housing redevelopment represents an extraordinary level of cooperation among four City departments and other partners, all working together to support a shared vision.

High Point is pursuing Built Green™ certification for all affordable and market- rate housing, and has received City Built Green™ incentive funding for phase one with 344 housing units.

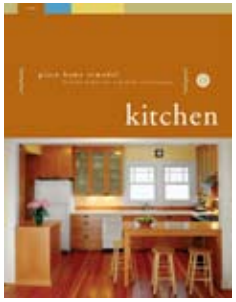
Natural drainage features which have been supported by SPU include vegetated swales that allow runoff to seep naturally into the ground, porous sidewalks and pavement, and a new pond the size of a football field contained within an urban park. The site comprises 10% of Seattle's Longfellow Creek Watershed.

Seeing actual examples of sustainable neighborhoods is critical, and such projects will become urban laboratories for sustainability applied at the community level.

# SeaGreen: Sustainable Affordable Housing

In 2002, the City's Office of Housing collaborated with affordable housing industry experts to develop a sustainable building guide that is tailored to the needs of the non-profit developers of affordable housing. The strategies outlined in "SeaGreen—Greening Seattle's Affordable Housing" help promote more sustainable approaches to managing the built environment in a socially equitable way so those in our communities who can least afford it will benefit from healthy, high quality affordable housing. Sustainable building works as a set of strategies to improve the economics of managing affordable housing while also improving the quality of affordable housing. (For more information, visit *www.seattle.gov/housing*.)

Applicants for funding from the Office of Housing are required to use the SeaGreen guide and submit a SeaGreen Sustainability Plan as part of their application package. There have been 18 SeaGreen multifamily housing projects with over $25 million funding since 2002, providing 711 green affordable housing units. One of the projects recently achieved LEED™ certification; two in development are currently pursuing LEED™; and five are currently pursuing Built Green™ certification. SeaGreen was also used as one of the source documents for The Enterprise Foundation's Green Communities Initiative which will promote sustainable building strategies for affordable housing nationwide.




# Green Home Remodel Program

Seattle's existing residential building stock is rapidly reaching the age at which substantial renovation activity occurs—low hanging fruit for green upgrades. Seattle Public Utilities launched a series of classes and guides focused on common remodeling activities that assist homeowners with incorporating green design and materials.

Two-hour Green Home Remodel classes are offered free of charge at branch library locations around Seattle. In 2004, 12 classes were held, with over 200 attendees. Enhanced promotion and targeted outreach in 2005 is estimated to result in classes and lectures attended by approximately 800 citizens. In 2006, the plan is to diversify class offerings to serve both homeowners and remodeling professionals.

The Green Home Remodel Guides, published in 2005, consist of an overview and seven in-depth, topic-specific guides, including Kitchen, Bath & Laundry, Roofing, Painting, Landscape Materials, Salvage & Reuse, and Hiring a Professional. The guides are available online at *www.seattle.gov/sustainablebuilding*, as well as in print form (free to Seattle residents). King County has reprinted the entire series, customized to their audience, and Chicago and Tacoma have requested permission to reprint them.

## Traugott Terrace

The City's first SeaGreen project completed, Traugott Terrace, opened in June 2003. A 50-unit "clean and sober" housing which serves an extremely low income and homeless population, it received LEED™ incentive funds and is the first LEED™-certified affordable housing project of its kind in the nation. Highlights include:

- Annual energy savings of 25%
- Annual water savings of 33%, with associated water heating energy savings of over $9,000 per year
- Recycled content in carpet, gypsum board, ceiling tile, insulation, steel, and concrete
- FSC-certified wood used for framing lumber and plywood
- Whole house ventilation, which creates good air quality and minimizes mold and mildew problems
- 78% of construction waste recycled

Program manager Jacqueline Raymond noted using green project features was a strong investment in the recovery process of the tenants:

*"The use of natural light helps combat isolation and depression. Recovering addicts/alcoholics need to begin to care about something other than themselves and their circumstances. Traugott has helped them care about electricity and water usage, recycling, and the importance of fresh air. This has translated into better self-care and preparation for home ownership."*

# assessing the value of Sustainable Building

*The Seattle Justice Center's thermal buffer increases energy efficiency.*

What is the value, both quantitive and qualitative, of investment in sustainable building?

The preliminary news is good. The State of California released a report in 2003 concluding "an upfront investment of less than 2% of construction costs yields life cycle savings of over 10 times the initial investment."

The City of Seattle completed an evaluation in 2003 that examined the costs and future benefits of implementing LEED™ on two of its projects, McCaw Performance Hall and Seattle Justice Center. When secondary impacts such as productivity benefits were included, the net present value was positive, particularly for buildings with large numbers of staff. Utility incentive programs helped to cover some of the initial costs as investments in conservation *(see Appendix 4)*.

*"An up-front investment of less than 2% of construction costs yields life cycle savings of over 10 times the initial investment."*

*— "The Costs and Financial Benefits of Green Buildings," A Report to California's Sustainable Building Task Force, October 2003, Greg Kats.*

In addition, evidence suggests increased market value of green projects. For example, 85% of the Brewery Blocks project in Portland leased in just one year at higher-than-market rates, all in a depressed real estate market (see project case study at *www.buildgreennw.com*).

The market shift demonstrated by this data suggests additional economic "value" will be assigned to green building projects during their lifetimes. If there is a cost increment, its important to look at the value of these cost increments over time, both to the community and the building owner.

## Building Post-Occupancy Evaluation

The City is conducting a post-occupancy evaluation of Seattle City Hall and Seattle Justice Center to collect building performance data in order to evaluate actual benefits and costs of the City's investment in LEED™.

This evaluation will share lessons learned and reveal how LEED™ is impacting the City and the region. It will also result in a "triple bottom line report" on performance for environmental, human and economic indicators.

The study is being done in partnership with BetterBricks and the Center for the Built Environment at the University of California, Berkeley. The results from the evaluation will be completed in 2006.

*— For more info, see Appendix 6.*

## Sustainable Building and Economic Development

The City is currently completing an economic development study to assess Seattle's sustainable building industry and the local economic cluster that supports it. The study will be released in early 2006, but preliminary results indicate that the sustainable building industry contributes significantly to Seattle's sales tax revenues, Business and Occupation tax revenues, and jobs.

*— Both reports listed above will be posted at* www.seattle.gov/sustainablebuilding.

# education & outreach

*Fisher Pavilion at Seattle Center attained LEED™ certification and was named one of the top 10 green projects of 2003 by the American Institute of Architects and received a BEST award from the Seattle Chamber of Commerce/Resource Venture.*

- Photo by Steve Keating

The City of Seattle's commitment to green building and LEED™ has generated much press coverage, international attention, and awards of merit, all of which significantly contribute to raising public awareness. A few examples of awards associated with the program include:

» Fisher Pavilion - American Institute of Architects' Top 10 Green Projects of 2003
» Traugott Terrace - NALHFA Merit HOME Award
» Denny Park Apartments (an incentive recipient) - selected as part of Enterprise Foundation Green Communities Initiative
» Justice Center and Fisher Pavilion - BEST Awards from Seattle Chamber of Commerce/Resource Venture (see pg. 14)

*— For more info on program awards and publications, see Appendix 7.*

## Green Building Communications Campaign

Led by the Department of Planning and Development (DPD), the City raised $300,000 in partnership with King County, BetterBricks, the U.S. Green Building Council, and local developers to develop and launch a green building communication campaign. The goal of this effort was to demonstrate the business case for green building to developers, to increase awareness and strengthen market valuation, and to support the City's economic development strategy.

Key messages targeted developers and building owners and tenants, stating that green buildings offer a higher net operating income, which increases building value; provide a marketing advantage that helps lease space in a competitive market; improve corporate image in the community; and offer lower operating costs.

*— For more, see visit* www.buildgreennw.com *and read Appendix 8.*

## Online Learning Tool

The City developed a web-based tool called "Implement" to guide project managers and designers. Hosted on the citywide Sustainable Building website at *www.seattle.gov/implement,* this practical how-to tool assists in implementing the City's Sustainable Building Policy. It features integrated design tools and best practice information sorted by project type. Current project types include fire stations and medium office buildings; future additions may include homes, schools, infrastructure. The website also offers case studies, policy information, sample contract language, and more.

BUILT GREEN™

## Design Competition and Marketing Campaign

To raise marketplace awareness and ultimately create more Built Green™ homes in Seattle, the City sponsored the Built Green™ Design Competition in 2005. Led by DPD staff, $100,000 in funding was raised from internal (DPD, Seattle Public Utilities, Seattle City Light) and external partners.

The winners, who received recognition and cash awards, were: BLIP Design, Velocipede Architects, GreenLeaf Construction, Martha Rose Construction, Inc., Sunshine Construction, Archdiocesan Housing Authority, and Seattle Housing Authority.

A Built Green™ marketing plan and toolkit is being developed to strengthen builders' and developers' ability to sell the benefits of green homes to prospective customers. The toolkit provides consumer brochures, signage, fact sheets, and press releases.

*Sunset Magazine* and *Pacific Northwest Magazine* ads will also communicate the following message: "Built Green™. Imagine if everyone did. A Built Green™ home offers: Healthier home. Cost savings. Healthier planet. Added value."

# partnerships & message leveraging

## BEST Awards for Sustainable Business

Each year Seattle businesses are eligible to win awards for sustainable building and other conservation efforts. Presented by the City of Seattle—in collaboration with the Resource Venture and the Greater Seattle Chamber of Commerce—these honors are called the "BEST Awards" (Businesses for an Environmentally Sustainable Tomorrow). The program was originally patterned after a Portland program and is now in its fourth year. Past sustainable building winners include the University of Washington Facilities Services, Archdiocesan Housing Authority, Miller Hull Partnership, Seattle University, and PCC Fremont.

*— Learn more about the BEST Awards online at www.resourceventure.org.*

## Sustainable Building Advisor Program

To meet the demand for professional education, the Sustainable Building Advisor Program was created in 2000 as a way to improve industry education for working professionals in the development community. Initial sponsors were Seattle City Light, Seattle Public Utilities, and Seattle Central Community College.

Now in its sixth academic year, the program graduates and certifies 30 working professionals annually. It has attracted students from Washington, British Columbia, Oregon, and as far away as Chicago. In 2003, Portland General Electric entered into an agreement to license the curriculum; licensing of the program is now being marketed nationally and three classes have been licensed in Ireland. Other education partnerships have occurred at the University of Washington, Cornish College of the Arts, Antioch University, and the Seattle Art Institute.

*— Learn more online at* www.seattle.gov/light/conserve/sustainability/cv5_scc.htm

## Other Educational Partnerships

The City's Sustainable Building Program relies heavily on both internal and external partnerships, and collaborates broadly within and across six City departments, providing support to both City capital projects and the private sector.

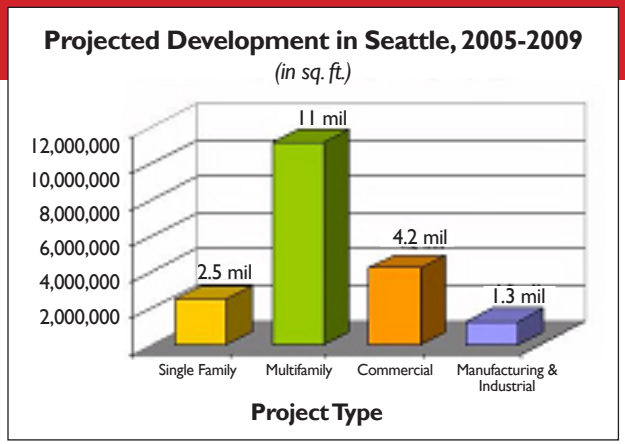
The Green Building Team, the Department of Planning and Development, and Seattle Public Utilities are partnering with the Central Library to co-host the "Sustainable Connections Lecture Series" throughout 2005. This series includes an Urban Sustainability Forum and Green Home Remodel lectures.

The Central Library, which attained LEED™ Silver certification, features interpretive signage to help patrons understand the green features. For more on the Central Library, visit *www.spl.org/default.asp?pageID=branch_central_about&branchID=1*.

Partnerships with other organizations and the private sector allow leveraging of resources, consistent messaging for customers, and efficiency of resources.

*—For more on partnerships, see Appendix 10.*

# future directions




Great progress has been made, but where are we headed next? How will sustainable building continue to transform the marketplace and leverage a larger group of sustainable building innovators?

In the coming years, construction activities and building operations will represent a significant portion of Seattle's resource use. For example, discarded construction materials comprise 15% of Seattle's landfilled waste (67,000 tons), another 180,000 tons are handled privately, and a further unknown amount may be recycled on-site in construction jobs. This represents a significant opportunity to increase recycling and reuse, contributing to the Mayor's 60% recycling goal.

Future annual growth in construction through 2009, according to Seattle's Comprehensive Plan, is expected to include over 13 million square feet of residential construction (single and multifamily), and over 5 million square feet of commercial and industrial construction. But will this construction result in resource-efficient, sustainable buildings? Will it contribute to quality of life for Seattle citizens?

Not all growth is good, but well-planned, sustainable development should be a central goal for Seattle. One of the key priorities of the City's Sustainable Building program is to trigger market transformation of the construction industry. The program's strategic approach is to steer planned construction activity toward increased conservation and other benefits not normally realized through code/standard practice. For example, the LEED™/Built Green™ incentive program has successfully leveraged a total of over 2.3 million square feet of planned development, 1,364 housing units, and over $295 million dollars worth of construction toward green building over a multi-year period. But this still represents a relatively small slice of Seattle's total construction.

*One of the key priorities of the City's Sustainable Building Program is to trigger market transformation of the construction industry.*

Many of the goals in Seattle's 1998 Sustainable Building Program action plan have now been met. Specific goals for the next phase of the program will be developed with input from stakeholders and become an action agenda. Some ideas being considered for the new agenda—slated for release in 2006—include:

- creating a sustainable development resource center called Urban Green in Pioneer Square at the Reedo Eco Center,
- reorganizing the current multi-department Green Building Team into a consolidated team at the Department of Planning and Development,
- creating additional green building incentives through codes and other programs, and
- developing additional technical support to implement the City's LEED™ policy on 17 planned neighborhood fire stations and three solid waste facilities.

Stay tuned for progress on these and other sustainable building goals at *www.seattle.gov/sustainablebuilding*.

# acknowledgements

The truth of the saying "It takes a village to raise a child" is amply proven by the development of the City of Seattle's Sustainable Building Program. Many thanks go to the following former and current City staff members, who provided countless hours of dedicated support to the goal of accelerating sustainable building. Thanks also to all the design consultants who have contributed to City green building projects, as well as to the citizens who attended building industry forums, worked on the City of Seattle Sustainable Building Action Agenda and the Northwest Regional Sustainable Building Action Plan, and currently serve on the Sustainable Development Center Steering Committee and Board. Particular thanks to Paladino and Company design consultants, who have assisted the City on a wide variety of projects and building analysis.

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## For More Information

For an electronic copy of this report and its appendices, or to learn more about the City of Seattle Sustainable Building Program, visit www.seattle.gov/sustainablebuilding.

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